

INL scientists, engineers and their families celebrated a year of exceptional achievement at the 15th Annual Idaho National Laboratory Honors Banquet.

INL inventors recognized for record-breaking achievements at annual banquet

By Ethan Huffman, INL Communications & Governmental Affairs

The 15th Annual Idaho National Laboratory Honors Banquet was filled with glitz, glamour and pocket-protectors as 160 scientists and engineers were honored for their impressive research and discovery achievements on Friday, Jan. 28.

The black-tie affair was hosted by Laboratory Director John Grossenbacher, who acknowledged the outstanding performance of INL employees in 2010. Among the highlights: INL scientists were awarded a record-breaking 53 patents, three R&D 100 awards, and dozens of national science awards. They licensed 39 technologies to private industry. A license is a partnership between the laboratory and a private company to manufacture and sell a technology that originated from government research.

As is tradition, the evening included two surprise announcements for the Inventor of the Year and Technician of the Year.

For 2010, four employees were selected as finalists for the Inventor of the Year award, which annually recognizes individuals whose inventions have lasting social, technical or economic importance. The group included Mason Harrup, Robert Fox, David Crandall and Terry Todd. Among them, they hold 46 U.S. patents and five R&D 100 awards, and they have published in hundreds of journals.

For the second straight year, Robert Fox was named the Inventor of the Year for his award-winning work on the Supercritical Solid Catalyst Converter, which transforms waste grease into biofuels. The technology won five major work that has generated 10 national and international awards and resulted in Fox being named a finalist for R&D Magazine's Scientist of the Year. Fox was named Inventor of the Year in 2009 for his work on the Precision Nanoparticles Technology.



Robert Fox was named INL's Inventor of the Year and received a lifetime achievement award for work that has generated 10 patents.

The Technician of the Year award annually recognizes an INL employee from the crafts field whose technical expertise supports the laboratory's scientists and engineers. For 2010, five employees were selected as finalists for the award: Shane Grover, Bill Fuger, Curt Hein, Steve Taylor and Spencer Taylor.



Retired INL researcher David Meikrantz described his Centrifugal Contactor technology, which was licensed by CINC Industries, LLC.

This year's Technician of the Year award was given to Bill Fuger, a machinist whose work supports the laboratory's national and homeland security missions. Fuger's reputation for producing high-quality, precisely machined products with innovative designs helped the laboratory secure several million dollars in new funding and additional work scope in 2010.

In addition, 11 INL inventors were specially recognized with lifetime achievement awards for earning multiple patents. Engineer Bruce Wilding was recognized for generating 15 patents during his career, while five other inventors — Robert Fox, Mason Harrup, Dale Kotter, David Meikrantz and Herschel Smartt — accepted awards for generating 10 patents each.

Scientists William Apel, Denis Clark, Jack Law and David Thompson were honored for generating five or more patents during their careers. When inventors receive five patents, they are entered into the laboratory's Inventor Hall of Fame, which includes 70 current and former INL employees.

Aside from patents, INL employees were recognized for other exceptional scientific and operational contributions. Several employees were honored for diverse accomplishments, including assisting Romania with the removal of all of its highly enriched uranium, winning the DEF CON cyber security challenge, and being named the 2010 Outstanding Engineer from Idaho State University.

The 360-member audience also took a moment to pay special tribute to INL employee Troy Tranter, who passed away just weeks before he was

to be honored with two patents at the banquet. Tranter worked at INL for 19 years and during his career earned an INL Lifetime Achievement Award for Inventorship, an R&D 100 Award and a Laboratory Director's Award for exceptional engineering achievement. He had numerous publications and 15 U.S. patents. Tranter's wife and children attended the banquet as special guests.

As the celebration continued into the evening, three INL employees were named as the 2010 INL Early Career Achievement award recipient, the Exceptional Scientific Achievement award recipient and the Exceptional Engineering Achievement award recipient.

This year's Early Career Achievement Award, which recognizes a high-potential individual under the age of 35, went to Derek Gaston. Since joining the laboratory in 2008, Gaston has become a leader in the field of multiphysics, a complex field of study that analyzes multiple physical models or multiple simultaneous physical phenomena. Gaston's research has led to the development of a high-performance computing framework called Multiphysics Object Oriented Simulation Environment, or MOOSE. MOOSE has been used to support the Department of Energy with future nuclear plant research, the Light Water Reactor Sustainability program and geothermal technology programs.

The Exceptional Scientific Achievement Award, which recognizes an individual who has made a major scientific discovery or solved a long-standing problem, went to Jill Scott. Scott is a well-respected expert in the fields of computational studies, reaction kinetics and mechanisms for refractory oxides, instrument design, and ion mobility instrumentation. Recently, her work has supported NASA's efforts to search for signs of life on other planets like Mars. Her work to identify biosignatures in planetary minerals may one day be used in Mars probes to determine the existence of life and analyze new materials.



Bill Fuger was named

The Exceptional Engineering Achievement Award, which recognizes an individual who is internationally recognized INL's Technician of the for turning ideas into products, went to Chang Oh. Selected by the laboratory's nine fellows, Oh is a world leader in Year. developing and applying new concepts to nuclear systems and is currently investigating air ingress phenomena and tritium permeation for high temperature gas-cooled reactors. His research has significantly advanced knowledge for future nuclear reactor designs.

The evening also included the signing of a new license between INL and CINC Industries, LLC for the patented Centrifugal Contactor technology developed by retired INL employee David Meikrantz. The technology efficiently separates oil and water at sea at a rate of up to 200 gallons per minute, and is being used to <u>clean up the Gulf of Mexico oil spill</u>.

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